PATENT
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Applicant:	Mehran Khodadoust	Confirmation No.:	6131
Serial No.:	10/029,471	Art Unit:	1636
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Customer No.:	21559		
Title:	COMPOSITIONS AND METHODS FOR THE DISCOVERY AND SELECTION OF BIOLOGICAL INFORMATION		

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDED SUMMARY OF CLAIMED SUBJECT MATTER

In response to the Notification of Non-Compliant Appeal Brief (37 C.F.R. § 41.37) mailed on March 9, 2009, and in accordance with 37 C.F.R. § 41.37 (c)(1)(v) and M.P.E.P. §1205.03(B), Appellant's provide herewith an Amended Summary of Claimed Subject Matter to replace the Summary of Claimed Subject Matter included in the Amended Brief on Appeal submitted on December 30, 2008.

Summary of Claimed Subject Matter

Appellant's invention features novel nucleic acid molecules which include three selection markers all of which lack a promoter and, when integrated into the genome of a cell, are responsive to one or more endogenous regulatory elements in that cell. Appellant has discovered that the linkage of three markers to endogenous regulatory elements of the host cellular gene is particularly advantageous because it allows for rapid development of cellular assays in which activity of the regulated genetic site can be measured quantitatively. Having the positive and negative selection markers responsive to one or more endogenous regulatory elements allows for the selection of cells in which the nucleic acid has integrated into an active genetic site. Having the reporter gene responsive to one or more endogenous regulatory elements allows for a quantitative read-out of the activity at the active genetic site, for example, after stimulation with an agent that stimulates activity of the regulatory element.

Appellant's invention is reflected in claims 83-109. Independent claim 83 and dependent claims 84-96 are directed to a nucleic acid that includes a negative selection marker, a positive selection marker, and a reporter gene, all three of which are promotorless and responsive to one or more endogenous regulatory elements in a cell after integration of the nucleic acid into the cell. Dependent claims 92 and 95 recite a vector and a cell, respectively, having the nucleic acid of claims 83, 84, or 85. The invention of claims 83-96 is described throughout the specification, for example, at page 6, line 15 to page 7, line 10; page 10, lines 5-13; page 11, line 14 to page 12, line 3; page 23, lines 3-8 and 11-16; page 27, lines 23-24 and line 30 to page 28, line 3; page 32, lines 13-16; page 38, line 27 to page 39, line 16, and in Figure 8A.

Independent claim 97 is directed to a vector that includes a nucleic acid segment having a

positive selection marker, negative selection marker, and a nucleic acid encoding a transactivator polypeptide wherein, when integrated into the genome of a cell, all three elements are responsive to one or more endogenous regulatory elements in the cell. The invention of independent claim 97 and dependent claims 98-108 is described throughout the specification, for example, at page 10, line 14 to page 12, line 3; page 17, line 24 to page 18, line 20; page 24, lines 11-16; page 37, lines 20-27; and in Figures 2 and 5.

Independent claim 109 is directed to a cell that includes a cassette having a positive selection marker, a negative selection marker, and a nucleic acid encoding a transactivator polypeptide, all three of which are promotorless and responsive to one or more endogenous regulatory elements in the cell. The cell also includes a nucleic acid having a promoter operably linked to an element that is directly responsive to the transactivator polypeptide in the cassette. The invention of independent claim 109 is described throughout the specification, for example, at page 9, line 22 to page 12, line 3; page 25, lines 8-27; page 38, line 27 to page 39, line 16; and in Figures 2 and 5.

Conclusion

Appellant respectfully requests that the Board reverse the Examiner's rejection of pending claims 83-109.

Enclosed is a Petition to extend the period for response for five months, to and including September 9, 2009.

If there are any additional charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

Date: September 9, 2009

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